Any make-up reports submitted by 15Nov11 are marked on the sign-up sheets.

Drafts of reports received by 19Nov11 will receive feedback by 26Nov11.
Syllabus:

1. Why should software be valued?
3. Market value of software companies.
4. Intellectual capital and property (IP).
5. The role of patents, copyrights, and trade secrets.
6. Open source software. Scope. Theory and reality
7. Life and lag of software innovation.
8. Sales expectations and discounting, Licensing.
10. Separation of use rights from the property itself.
11. Risks when outsourcing and offshoring development.
12. Effects of using taxhavens to house IP.
13. Acquisitions and growth
Offshoring

Task transfer to Enterprises in Foreign countries

Two aspects:

1. Work migration: jobs are moved to lower-cost countries

2. Support software etc. is moved to enable similar productivity in those countries

Income is generated by people and (intellectual) capital
Hypothesis

• Offshoring of jobs is effective because of concurrent Intellectual Property (IP) transfer
• Much of that IP is corporate property
• Transfer of corporate IP & IP rights is poorly understood
  ➢ IP as property is not well defined, hard to measure
  ➢ There are many components to IP, coming from
    ▪ open source, R&D, marketing, reputation as
    ▪ Patents, copyright, trade secret (covered by NDAs)
• Even if hard to value, IP & IP rights is a significant export
Types of Foreign Entities

• **Independent Foreign Contractors**
  - IFC may serve multiple customers
    - Share trade secrets with competitors
  - Owners need contracts to protect the IP
    - Hard to monitor and enforce

• **Owned, Controlled Foreign Corporations**
  - CFC provides much more control over IP
  - Ownership often in third-party countries
    - Avoids taxation of sales to other countries
Knowledge is the Link

To be effective a worker has to know what has to be done

- That knowledge consists of
  - The technology
    - Documentation, prior versions, quality control
  - The business methods
    - How technology in the product is marketed
    - The flow from buyers to improved products and methods

- Companies distinguish themselves by proprietary IP
  1. Patents, sometimes Copyrights
  2. Confidential Documents
  3. Knowledge within its people - protected by NDAs
Taxhavens

Places where

1. Taxes are low
2. Financial and IP supervision is minimal
3. Reporting requirements are minimal

• Three cooperating types are needed
  1. Primary tax havens (about a dozen countries)
     ▪ Small populations,
     ▪ Can live largely of license fees
       ○ Cayman Islands: pop. 50K, 90K companies @ 3000/year
  2. Semi-taxhavens (more, but diverse)
     ▪ Large populations, need jobs
     ▪ Enact, often temporary, tax benefits for foreign work
  3. Conduit taxhavens (few, small, financially active countries)
     ▪ trusted, separate taxhaven activities by ringfencing
     ▪ can shuffle funds invisible among locations
Parent: MNC

Semi-

CFCs: MNC JB
MNC MY

Set Up

Control

Own

CFH: CONCH
Primary

CFI: CAAS

Conduit

Advisor: ATA
Forest Labs flow
[from Business Week 14 May 2010]

0. Initial transaction: IP rights transfer to Bermuda

$99
$76
$5
$7
$64
$12 IP license
$45 profit, after tax + overhead
potentially US taxable
$50 available for new investment?

1. Phoenix
Tyler Hurst purchases a prescription of Lexapro for $99 at a Phoenix Walgreens. The money heads east.

2. New York
Forest Laboratories, the maker of Lexapro, is headquartered in New York City. While all of the company’s sales of Lexapro are in the U.S., most of the profits end up with an Irish subsidiary. The pills are purchased from the Irish subsidiary and distributed throughout the U.S.

3. Dublin
A subsidiary called Forest Laboratories Ireland manufactures and sells Lexapro to its U.S. parent. This lets Forest legally shift most profits from the U.S. to Ireland, avoiding a 35 percent U.S. corporate income tax. To reduce its tax bill even further, the manufacturing unit’s corporate cousin, Forest Laboratories Holdings, registered an office in Hamilton, Bermuda, declaring the island its tax residence.

4. Amsterdam
Forest avoids a 20 percent Irish withholding tax on payments it sends to Bermuda by first paying another subsidiary, Forest Finance in the Netherlands. Forest Finance then pays the office in Bermuda. By going to another European Union member state first, the withholding tax is avoided.

5. Bermuda
An Irish manufacturing unit of Forest pays the Bermuda office to sublicense Lexapro’s patents. Those payments move the taxable profits out of Ireland and into Bermuda. This maneuver helped cut Forest’s Irish income tax rate from 10.3 percent the year before to 2.4 percent the year after.

Bottom Line
Tax dollars that could be paid to the U.S. on profits generated by a product sold entirely in the U.S. are significantly reduced. Income taxes in Ireland are largely avoided. Technically, the U.S. taxes are deferred. This brings the offshore profits back home to the U.S. But American companies rarely repatriate significant portions of that income.

[Design Hermann Zschiegner]
Parent corporation

Sub corporation “CFH”

Salaries

License fees

Initial purchase

Know How of the workforce

With Taxhavens: Three-party flow

Offshore job sites

Integration

IP documentation

High-value Products

Rights to the Intellectual Property

non-routine profits

License fees

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Capital and IP at source creates more IP and Income in CFH.
Apple paid less than 2% corporation tax on its profits outside the US, its filing with US regulators has shown.

The company paid $713m in the year to 29 September on foreign pre-tax profits of $36.8bn, 1.9%.

It is the latest company to be identified as paying low rates of overseas tax, following Starbucks, Facebook and Google in recent weeks.

It has not been suggested that any of their tax avoidance schemes are illegal.

All of the companies pay considerable amounts of other taxes in the UK, such as National Insurance, and raise large sums of VAT.

Apple's figures for foreign tax appear on page 61 of its form 10-K filing with the US Securities and Exchange Commission (SEC). The form is used to summarise the performance of public companies.

It had paid a rate of 2.5% the previous year.

Apple channels much of its business in Europe through a subsidiary in the Republic of Ireland, which has lower corporation tax than Britain.

But even Ireland charges 12.5%, compared with Britain's 24%.

Many multinational companies manage to pay substantially below the official corporation tax rates by using tax havens such as Caribbean islands.

http://www.bbc.co.uk/news/business-20197710
Capital flow with a taxhaven

Tax havens:
- Vanuatu
- Cayman islands
- Barbados

US taxes
Income
Capital
Buy-in
IP
Source
IP Creator

Controlled Foreign Holding Company

CFC
IP consumer

Income
Royalties
Capital
Foreign taxes

Fees

United States

Tangibles are harder to move than IP
Job Flow @ different levels of personnel

Is knowledge transmitted from the top or acquired from experience at the bottom?
Longer term effect

• Repatriation of $$ from the CFH to the US is taxed.
• Current workers are paid by the CFH.
  US and offshore employees are unaware of the source of their paycheck
  ➢ The CFH acquires an increasing fraction of the IP
  ➢ The CFH is paid an increasing fraction of the income
  ➢ The CFH in time can becomes richer than the company.
• It is more efficient for the company to invest in low-tax countries and create jobs there.
  ➢ Job losses in the U.S. increase
• Eventually the CFH can buy the parent company.
  ➢ Control by stockholders is gone as well
Effects over time

Taxing country
- $ for taxes
- IP at the parent corporation
- $ for initial IP_i
- Right to use the IP
- $ to maintain the IP
- Ongoing IP rights

Primary taxhaven
- IP available for more new projects

Initial IP transfer
- Profit share for parent
- Profit share for CFH
- $ all untaxed

New projects in semi-taxhavens/low cost countries
- New profits only for CFH

18-Nov-12
Problems

• There is a lack of trustworthy data

1. $209M spent [US commerce department, 2003]
   \[ \text{+ 4663 jobs lost} \] [U.S. labor dept, 1Q04]

2. $2400M income [Business week, in 2003]
   \[ \text{+ 50000 jobs gained} \] [Indian NAS&S Cos, Fy04/4]

• Attitudes are inconsistent

Greenspan 1: IP rights have assumed increasing importance [27Feb03]

Greenspan 2: Our economy is best served by full and vigorous engagement in the global economy – when defending reducing protection [11Mar03]
Related Intellectual capital issues

Not all intellectual capital is owned, property, IP

1. Education: Services that transmit valuable, but non-
proprietary knowledge to others.
   - If receiver pays, certainly can take it anywhere
   - If the state pays, can it / should it be reimbursed? Now not.

2. Publication: IP placed into the public domain is no longer IP
   - Who benefits?
     - The reader gets knowledge / The writer gets fame
     - Society becomes more egalitarian, effective

• These 2 aspects can easily confuse IP discussions
OEM fabricators, US and offshore

Chip and board manufacture offshore

FCM Products

Typical FCM

One-time Buy-in IP

6-year royalty tranche

IP: designs

IP use licensing

documents, knowhow

Profit

IP use rights

Cost-share payments

Offshore Revenue ~60%

U.S. offshore

Cost-share payments

Offshore Revenue ~60%

US Revenue ~40%

Chip and board manufacture offshore

Flows are messy

Fabless Chip Manufacturer

FCM-I International Ltd
Isle of Man

Owns

FCM-I Ireland

FCM-D Design & development

IP rights tranche

One-time Buy-in IP

6-year royalty tranche

IP: designs

IP use licensing

documents, knowhow

Profit

IP use rights

Cost-share payments

Offshore Revenue ~60%

U.S. offshore

Cost-share payments

Offshore Revenue ~60%

US Revenue ~40%

Chip and board manufacture offshore

FCM Products

OEM fabricators, US and offshore
Not all tax havens are offshore: Delaware

Formal HQ of Coca-Cola, Ford, General Motors, Google, Hewlett Packard, Intel, Kentucky Fried Chicken, Texas Instruments and 200,000 more corporations

owner:
Corporation Trust, a subsidiary of Wolters-Kluwer, a Dutch publishing house.
Need increased understanding and accounting for IP exports (making them visible)

To rationalize political concern by populists & traditional conservatives versus strong lobbyists pressures and globalists

Correct pricing, licensing and its taxation of IP exports
- will increase corporate profits in the U.S.
- reduce cash in offshore accounts, more for U.S. investment
- provide taxes that could be used to compensate
  - for R&D support provided by the government
  - for educational costs
  - for unfunded retirement benefits of workers whose IP was outsourced

- Is unlikely to stop offshoring substantially
- Amounts would be large in a number of cases
- But ….
Exports and Transfers go both ways

• There is innovation everywhere

• If the U.S. imports IP, the receiver should pay
  ➢ Basic and fundamental research in the U.S. is declining
    ▪ Growth was motivated by WW II experience [Vannevar Bush]
    ▪ Many countries now fund fundamental research
  ➢ The ratio of applied to basic research is increasing
    ▪ Industrial research is mainly applied
    ▪ Technological research is rarely basic
  ➢ Development requires more resources
    ▪ Industrial and management infrastructure
    ▪ Demonstration and Beta sites - early adopters
Bernie? Hey, Mike! What's up?

I'm standing in front of your office, and it's vacated! What's going on?

Space for lease. Call (415) 555-1334 ext 217.
We've outsourced everything off-shore - back office, customer service, even distribution.

My margins are way better now. You might want to consider doing the same thing with your operation.

Gee, I dunno...

I'm telling you, Mike, it's the way to go. Let's talk about it over lunch. Set it up with my secretary.

Um...okay. Where is she?

India. Just call the main number.